BRITISH COLUMBIA

Ministry of
Management Services

Office of the
Chief Information Officer

MEMORANDUM

Ref: 18774

Date: December 15, 2004

To: All Deputy Ministers

Re: **e-Government Plan, 2004 – 2007**

It is my pleasure to provide you with the attached e-Government Plan, 2004 – 2007. The purpose of this plan is to provide a more specific overview of potential issues and opportunities presented as the government and the individual ministries continue to move more services online.

This plan is designed to build on the direction and initiatives discussed in the e-BC Strategy, released in May, 2004. The Plan describes an e-Government delivery framework and supports the proposition that certain foundation components (such as security and authentication) require assured corporate funding.

The document also contains a summary of the existing fully transactional applications currently in operation. This Office is developing a comprehensive inventory of all web applications to aid in corporate or sector collaboration and planning.

The province has been, and continues to be, a leader in the provision of electronic services. I believe that during the next two years significant progress will be made on both the foundation components, and on the specific e-service delivery applications.

This will ensure that the province remains a leader in web-enabled government operations and service delivery.

"Original signed by"

R. C. McCandless
Chief Information Officer
Chief Operating Officer - Common IT Services

Attachment

cc: Brenda Eaton, Deputy Minister to the Premier
Assistant Deputy Ministers of Corporate Services
ISB Directors

BRITISH COLUMBIA

Office of the Chief Information Officer

Ministry of Management Services

e-GOVERNMENT PLAN

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1.0 IMPETUS FOR e-GOVERNMENT

It is now well accepted that, due to computerization and the Internet, we live in an increasingly connected society. The Internet has transformed the method by which government, the business community and people interact. Today, more and better information is available faster, and more economically, to greater numbers of people than ever before in our history. As more communities and people come online, the digital network of high speed, broadband communication infrastructure continues to expand. Citizens, business and governments are moving to take advantage of the benefits offered by the information age and the Internet.

Citizens and businesses expect access to information and services on the Internet. To support business development and economic growth, and for British Columbia to be competitive in this global economy, governments must offer online information. Both citizens and businesses wish to reduce the cost and efforts to obtain information or access a service. e-Government allows self-serve access any place, anywhere and in timeframes that are convenient to businesses and citizens.

e-government allows businesses and citizens to provide feedback and actively contribute through electronic consultation, virtual communities and online forums.

It allows for delivery of services of government programs without the requirement for in-person visits to government offices. It can reduce the number of points of interaction required by a business or citizen as ***it transcends traditional service delivery and provides an integrated "one stop service offering" that knows no organizational boundaries.*** It enables channels of communication to provide constructive feedback and debate, which are not available without e-Government. Most importantly, it makes government open, accessible and responsive, which is key to future prosperity and economic growth.

e-Government is a good vehicle for attaining efficiencies, cost containment and possibly revenue enhancement. The use of common applications and infrastructure spanning government agencies assists in attaining the goal of more efficient and effective government.

1.1 Progress to Date

The Province of British Columbia is already a leader in e-Government services. Currently through a variety of programs the Province offers over 300 external electronic services and over 200 internal e-services.

The majority of the services, approximately 400 are transactional or interactive in nature, while approximately 100 of the services are informational. A summary is provided in Appendix I.

In addition to these successes, a great deal of research and planning for electronic services has been carried out, including that sponsored by the Office of the Chief Information Office (CIO). This activity produced a number of background papers resulting in the "e-BC Strategy" published in May, 2004. This can be found on the CIO web page at www.cio.gov.bc.ca.

The e-BC Strategy was an important milestone in advancing the electronic government agenda. The e-BC Strategy established the vision for e-Government and identified the foundation requirements and strategic directions. It indicated that e-Government would transform "the way people everywhere engage with the British Columbia Government and receive services they need, at the time and in the manner of their choosing."

The government's current success with electronic service delivery could not have proceeded without strong supporting legislation that recognizes the legitimacy of electronic transactions and protects the personal information of British Columbians, whether in electronic or paper form.

In 1993, British Columbia's Freedom of Information and Protection of Privacy Act (FOIPPA) became law at the provincial government level. The Act requires provincial public bodies to follow certain rules respecting the collection, use and disclosure of personal information.

In 2002, the BC Government passed the *Electronic Transactions Act* (ETA) to support its move into the global electronic economy. The principle purpose of the ETA, which is based on a model developed by the Uniform Law Conference of Canada, is to remove any uncertainty about the legality and enforceability of electronic transactions conducted in the province.

Additionally in 2003, the government passed the *Personal Information Protection Act* (PIPA) to ensure that personal information about British Columbians held by B.C. businesses and not-for-profit organizations enjoyed the same high level of protection as personal information held by government agencies in B.C. PIPA struck a balance between an individual's right to privacy and a business' legitimate need to collect, use and disclose personal information for reasonable purposes that are necessary to provide services.

Another fundamental building block to e-Government was the construction of a communications network consisting of high-speed data and voice lines connecting over 2000 government offices. The common provincial network (SPAN/BC) connects all core government, and many public sector organizations. The network is constantly being enhanced to support faster data transfer requirements and more connectivity points. Recently, the province has introduced a new and focused organization, NetWork BC, in part, to expand broadband service to the rural communities of British Columbia. Of the 168 BC communities identified as lacking broadband, five have been connected since February of this year and more rural connectivity continues to be underway.

Also, it was recognized that common electronic delivery components must be in place to support web development for e-Government. The province believed it was important that it had a common identity/look and feel for Internet presence and that the user would have a common experience using government services. Government standards for presentation and navigation have already been published and a significant number of web pages and web applications are using these standards. The government has established standards and products for payment, the Provincial Treasury Internet Credit Card Payment System was developed to be used by all ministries with applications needing payment online.

The province has also rationalized and consolidated information technology services, and placed renewed emphasis on cost effective services to the public. In 2002, BC opted to include IT infrastructure as a shared service and established a three-year goal for IT infrastructure consolidation, an aggressive schedule when compared with other jurisdictions in North America. There is now a highly integrated LAN/WAN server environment connecting government ministries that enables load balancing and distribution of valuable technical resources as required. Included in the Common IT Services (CITS) mandate is providing shared services to public sector agencies; the leveraging of government-wide purchasing; and the use of outsourcing opportunities as a means of lowering overall service delivery costs.

The government has consolidated and rationalized common information technology services to contain costs and provide common standards and service. Industry standards and best practices have been adopted, including desktop devices, office productivity suites, document structure and format, e-mail and application development and database environments. The government has established a standard Enterprise Documents and Records Management System (EDRMS), as a common service offering to ministries. The EDRMS provides a secure environment for filing, retrieving and using government electronic documents and e-mail, and supports the long-term accessibility, integrity and preservation of these records. The province has also implemented a standard suite of applications used by all ministries for accounting and human resource management, which has further allowed the introduction of e-forms accessed by government employees for such tasks as time and expense reporting. This has improved productivity within government and positioned the ministries to move forward on their key application initiatives.

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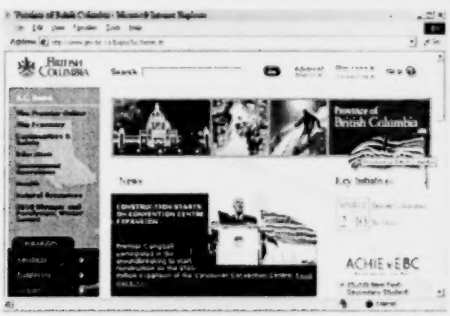
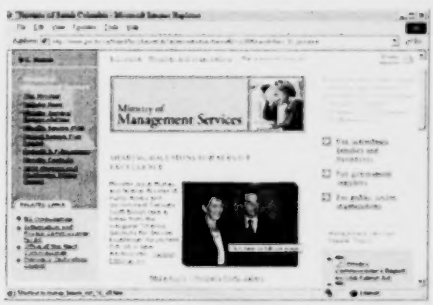




1.2 Notable Successes

In addition to many of the corporate standards and infrastructure components that support the general plan and lay the groundwork for moving forward with e-Government service offerings, the province is currently able to offer an extensive inventory of online e-services. The Province of British Columbia currently has over 500 e-service offerings. Much of these successes were built by delivering outcomes in small, scalable components in order to obtain feedback and implement improvements. The province still has an aggressive agenda for e-Government and plans are already in place for new services and upgrades to existing services. There is much work to do, but some of our notable successes to date are briefly outlined below.

- Electronic Identification – *The government is committed to providing corporate authentication services. Electronic authentication is a necessary requirement for any electronic service system. The province is well advanced with employee authentication (IDIR) and common business registration (BCeID) for incorporated companies of B.C. It is now moving forward with an extended corporate authentication service that can be used to support all programs that require authentication.*
- BC Online – *This service is used by the private sector to quickly establish a government online transactional presence. It currently provides a number of services; including access to land title information, procurement of Land Data BC products, lien search capability and online filing of annual reports for B.C. companies. BC Online is structured for commercial users that will be conducting regular transactions. The system requires users to register and costs are recovered through transaction fees. One of the new services, the filing of company reports, supports single transaction payment with a credit card.*
- Electronic Fee Payment – *This service enables an Internet payment system interface with commercial banks to allow ministries to collect credit card fees when e-services require online payment. This system is also integrated into the government-wide accounting systems for revenue reporting.*
- One stop business registration – *This program enables online, one stop registration of business through web based integration of federal and provincial* registration forms.

- Achieve BC – *Achieve BC consolidates the latest information and educational tools to promote learning and achievement during the early childhood, grade school, post-secondary, and work environments.*
- Address Change –*BC residents can electronically notify the Medical Services Plan, the Motor Vehicle Branch (for Drivers Licenses) and Elections BC of change of address.*
- Travel planning tools and Reservations Online – *This early electronic service presents various electronic reservation systems and tools that assist visitors while planning travel in BC. There are various web sites for reserving BC Parks and Federal campgrounds as well as BC Ferry travel.*
- BC Bid – *This has facilitated electronic tendering from suppliers all over the world to be able to do business with the Province of B.C. online. The program provides a directory of all active procurements and allows interested vendors to download specifications and bid packages. Cities and other organizations use BC Bid to post their procurement information and recent enhancements to the system allow for some competitions to be responded to online.*
- Natural Resource Management Sectors – *A number of initiatives have been completed to set cadastral standards for mapping and digital data standards. Digital land plans can be submitted over the Internet to the provincial planning registries. Online Cadastre provides Internet access to British Columbia Crown land information. Portals are available for land and water. Access is available to complete mineral title searches and access to a range of online services offered through the BC Assessment Authority.*
- Land Title Branch Electronic Filing System (EFS) – *This system enables authorized users to electronically submit Land Title documents for registration. EFS templates are used to generate an electronic land title form. The form templates are then downloaded to a user's PC and the effort required to complete the documents is expended offline. Once the form is completed, a lawyer or notary applies a digital signature to the electronic form, which can then be submitted to the Land Title Office through BC Online.*
- Health Portal – *This system provides centralized access to various health resources including Healthwise (an online guide to over 3,000 common health topics, tests, procedures), BCHealthfacts (a series of one page fact sheets on health and safety), Healthguide (a guidebook to over 190 common health concerns) and BCNurseLine.*
- Education – *The province, through SPAN/BC provides common Internet access to BC public schools, colleges and other educational institutions. PLNet offers students, teachers and administrators a full range of online educational and administrative resources. Government has recognized that electronic learning is a fundamental opportunity for life long learning that will enable British Columbia to remain competitive and economically prosperous. The government, in consultation with industry leaders, continues to promote technology and e-learning centers and to support BC Online.*

2.0 KEY CHALLENGES

In order to achieve the benefits of e-government *a significant investment is not only required in technology, but also in changing culture, business models and accountability relationships.* To ensure greatest value the delivery of information and services via the Internet necessitates a planned, coordinated and unified approach from all participants. It requires a collaborated effort between agencies and ministries in order to be successful and provide value added services.

Typically, e-service applications introduce the requirement to access and/or expose government records that have traditionally only been accessed by internal employees. This introduces a number of challenges that need to be overcome including protection of privacy, electronic document formats, storage and retrieval, record-keeping practices, data quality, data currency and data security.

Some of the key challenges to electronic service delivery include:

Enterprise Architecture and Standards

Enterprise architecture infrastructure as well as standards need to be defined in order to support e-service access requirements. These standards need to be developed at both the business process interface level as well as at technical levels. In addition, interconnectivity standards for information exchange are required. This is a growing issue for government and industry alike, as any requirement to interoperate with external partners on different networks, using different applications and standards, poses a real obstacle that needs to be overcome. This will require the adoption of a well-defined information management infrastructure in order to maintain control over the life cycle of the government record.

Improved Accessibility

The government is committed to making e-services accessible to smaller communities in rural BC. While many other governments are just beginning to implement a broadband communications network, the province is extending the existing SPAN/BC network and is continuing to work with rural and remote communities to expand Internet access.

Improved Security

As the province continues to develop and enlarge the SPAN/BC network to allow greater access another challenge is to ensure that there is appropriate security in place. The existing security infrastructure does not adequately address the growing requirement for external access.

Protection of Privacy and Identity (Authentication and Authorization)

Besides addressing the security infrastructure, solutions must be found to safeguard privacy to ensure that appropriate e-services are delivered to clients. Offering an online and customized user experience requires infrastructure to support electronic identity verification. This secure "e-identity" must instill trust, protect privacy and inspire confidence; otherwise users will not access services and realize intended value.

The protection of personal information is another critical area. Mechanisms must be developed to ensure that the identity of users and their transaction records are handled securely and only used or disclosed for the purpose for which they were collected unless otherwise authorized through legislation or consent. Previous experience has shown that the public will only embrace on-line services when they believe their personal information is securely protected.

Cultural Change and Business Transformation

To deliver e-services government must embrace change and be prepared to transform its service delivery mechanisms. As previously discussed, various applications have been independently designed with customized business processes and transactions. This is even true for programs that have similar activities but are in different organizational units. Management must support the need to understand the governments' customers and move forward by streamlining business practices to support e-service delivery. The need to ensure that the government record can be provided accurately and in a timely manner will be key to the successful delivery of a valued service to government's clients. Also, in order to deliver "one-stop" transactions to government clients, the government should continue to adopt new and integrated business processes that span program areas, government ministries and other levels of government. This is no small undertaking. Typically, there are various supporting processes that require change and this makes it very difficult to limit the scope to manageable deliverables that produce tangible outcomes in reasonable time frames.

Market Planning and Timely Service Delivery

Another key challenge is to provide services in a timely manner at a cost that is affordable to government. Although there are some potential revenue opportunities that can offset costs, it is difficult to place a value on some of the benefits of e-service delivery. Each ministry initiative must therefore be judged by its own business case and measures to assess the outcome against the investment. The value model for attaining funding of e-Government initiatives must be more clearly defined. The benefit of many e-service plans do not always fit well into the current budget planning cycles. Projects will span multi-years and funding must be secured for the lifecycle of the initiatives in order to deliver successful outcomes.

Central Funding for Shared Initiatives

In addition to specific program developments, the e-Government initiative necessitates a collection of framework components that require central funding. The development of some of these components has already begun. Currently, some initiatives are funded through ministry contributions, which can make it difficult to fund the central initiatives through to completion and find on-going funding for improvements as ministry pressures and priorities change over the course of a project lifecycle.

Collation and Collaboration

Government must become efficient at breaking the institutional silos and enabling "integrated" public services by collating inter-agency information in order to deliver a holistic transaction to the client. There is an extensive technology inventory within each of the ministries but very little interaction between the separate systems and data repositories. This will require information exchange standards to be addressed as well as ensuring that the requirements for privacy and security are met.

3.0 Strategic Directions

British Columbia's goal is to become a recognized e-Government leader among public service agencies. The province has completed some of the fundamental foundation work that many jurisdictions are just beginning, and has already made significant contributions to the e-Government initiative. To build on this achievement, substantial future resources and committed support from government is required. The government must leverage private sector innovation and business ideas to deliver and improve upon services to government clients.

The future priorities are:

- *To provide enhanced infrastructure that supports ongoing service delivery improvements. This includes communication, security, and e-application infrastructure.*
- *To clarify and strengthen information management standards and policy so ministries can remove boundaries and collaborate more effectively to realize "one stop services" delivery.*
- *To provide common services and efficiencies to ensure cost containment or reduction and, where possible, revenue generation.*
- *To focus on a customer centric model of e-Government applications and initiatives to increase customer participation and satisfaction.*

Based on these priorities the following are the strategic directions for the next three years:

Simplified Access to Services

Access to on-line services must transcend the boundaries of the government organization and provide public services in a "one-stop" and customer oriented way. The public is being provided with the convenience of access to electronic services via the Internet, public self-service kiosks and through mobile devices. Government must equally ensure that the portal to government services provides a customer experience that includes easy to use personalized features.

Simplified access should make it easier for the public to know about the services and be able to quickly find a service of interest. Currently, government clients must navigate through various entry points in order to find the service of interest, this includes, the enterprise portal, BC Online, ministry web pages and individual ministry "port-lets". A single directory of services would be of significant benefit.

A single sign on and secure access to government e-services will require that government delivers on its commitment to provide a central identify management service for both citizens and businesses; one that supports all of the defined government trust levels.
Each e-service provider must identify opportunities for collaboration and mechanisms to simplify the delivery of services to government customers.

Enhanced Infrastructure and Data Sharing Standards

A common technology plan needs to be clearly articulated to address the newer technologies that are required to support e-services as well as to articulate strategies for data exchange and data sharing. The overall technology plan needs to be developed with ministries as part of the overall planning process in order incorporate existing ideas and experiences of early adopters of web-based technologies. A collaborative approach to planning, developing standards and acquiring common component architectures will reduce the overall costs to government.

It is equally important to define the process and methods for extending access to information, to address Ministry to Ministry, Government to Business and Government-to-Government transactions.

The SPAN/BC communications network, through the auspices of Network BC will continue to expand; the end of 2004 will connect sixty-five more rural or remote communities in the province, and the end of 2006 will see all of BC networked. As the network continues to connect more citizens, plans are being developed to extend SPAN/BC to encompass newer technologies such as wireless, mobile computing and upgraded email services.

A migration to Voice Over Internet Protocol (VOIP) has also begun to take advantage of the rapid convergence of voice and data transmission and related cost savings. In today's world, government employees can easily spend hours a week checking separate voicemail systems, mobile phones, email systems and checking for faxes. With VOIP, a single universal connection can be made to an employees in-box for access to voicemail, e-mails and all other messages. This can simply be checked from any Internet browser.

To operate in an electronic environment it is vitally important that any organization have a strong security system. A proper security system is not only designed to keep data and IT infrastructure safe; it also provides access to the organization in a managed and controlled way, allowing people and organizations to work together. As technology has evolved so has the nature of threats to the information and business processes. In addition to natural disasters and inadvertent human error, premeditated attacks by viruses, worms and other forms of destructive code are a growing threat to the integrity and reliability of the governments automated systems and network. Also, government needs to allow outside networks to securely access government infrastructure and data. A well-designed security system, appropriately administered, is the key to instilling this confidence.

The existing security framework must be extended to accommodate the new open access approach. Also, redesigned security practices are required to incorporate current and future technology directions. These security enhancements will clarify and strengthen the governments policies and guidelines, reduce current vulnerabilities to unauthorized access to private information, prevent the disruption of government's critical infrastructure and business and minimize damage and reduce recovery time related to disruptions that do occur.

The successful transition from traditional to electronic government services requires a model that is easily accessible to a broad base of consumers, is reliable, convenient and secure. Consumers need to be able to identify that there is a definite benefit for using this new mode of service and that the drawbacks – such as privacy issues – are minimized. One means of protecting individual's personal information is through a strong identity

management framework. Identity management consists of the processes for managing information about individuals and businesses as to who they are (identification), how we verify the person's identity (authentication) and what e-services or information they are allowed to access (authorization). Work has already started with the Corporate Authentication Project, but further effort is required to expand and implement the common requirements and policy framework.

Directions on standards are required in a number of areas in order to support the other strategic directions of e-government. Currently data sharing is a problem; there is a requirement for standards to address interconnectivity to encourage data sharing between individual applications. An XML framework has been documented, but these have not been published as standards. Web-method products have been adopted, but once again this has not been fully accepted as a standard. Reporting standards have not been established, nor have standards for transaction sharing. Also, there are no standards for electronic document exchange. For example, a number of electronic filing e-services are being introduced (land titles, corporate online, courts e-filing). Each of these e-services is using a different standard for document submission. Over time this will become a problem, as e-clients will be required to have different supporting software for each e-filing service that they use. Electronic signatures also present an area where standards are required. Again, as various e-services mature this will become a problem for our external clients if there are different requirements for each e-service application.

Collaboration for "One-Stop" Services

Users of e-Government should not require innate understanding of government hierarchy in order to obtain services. They should not need in-depth knowledge of each transaction required to complete service delivery, nor should they require an understanding of government organization in order to attain a service.

Currently, electronic service delivery is focused on single transactions within a program area or ministry structure. Often, successful completion of a service "event" requires multiple transactions over many program areas and organizations. Users are not educated to consider transaction *sets* or the way in which government is organized to provide a service; instead, they focus on the high-level outcome to be achieved.

As the e-Government framework matures transactions must be bundled into service packages that respond to customer "events". This will require collaboration and connectivity standards between agencies to promote information sharing. Secure,

authorized universal data access must be enabled from existing applications through shared e-service delivery channels.

Inter-agency collaboration and cooperation to promote interaction between separate systems and data repositories should be encouraged through common infrastructure. Where practicable, ministries will design e-applications that are re-useable and extendable so that others may benefit and reuse transactions to support extended services.

In time, the province will be well positioned to provide consolidated services that span government organizations. Based on extensive consultation and collaboration, services can be developed that provide businesses and the public with single contact points, multi-purpose transactions and coordinated transfers of information – when desired by the client and appropriate to the context of the services offered. Within the bounds of legislated privacy requirements, services may be accessible through a range of government offices, contracted service providers and external industry partners to increase accessibility, efficiency and fiscal benefits. Finally, government must build on its strengths through sharing successes and knowledge gained from other initiatives. The province will continue to partner with industry experts and other government jurisdictions that have successfully implemented electronic solutions to affect knowledge transfer and build additional internal expertise. There must be a knowledge repository maintained for access by government ministries and agencies.

Common Services

Action plans need to be developed for each of the common services that will focus on building common components based on agreed priorities and timeframes. The plan will include small, scalable solutions, which can be delivered within planned timeframes. As such, the government's inventory of e-services will continue to expand and complement traditional service channels.

The expansion of e-services will be supported via the Common IT Services mandate. Additionally, leveraging of government-wide purchasing and the use of outsourcing opportunities will also play a part in facilitating expansion. Through relationships with industry and others, government will implement "best of class" processes and electronic tool sets to ensure maximum efficiency when developing e-service applications.

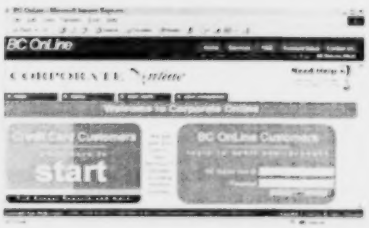
Customer Centric Service Delivery

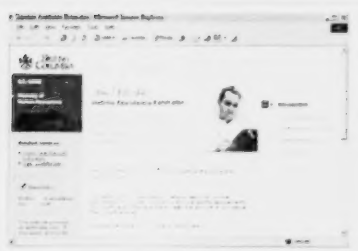
Research indicates that client acceptance is a significant challenge to successful e-Government implementation. As the province continues to move forward and becomes a leader in e-Government, the e-services expansion strategy is focused on a customer centric model that provides increased effectiveness and efficiency for both users and government. An understanding of the target audience is required to focus effort and investment on groups that have significant potential up-take.

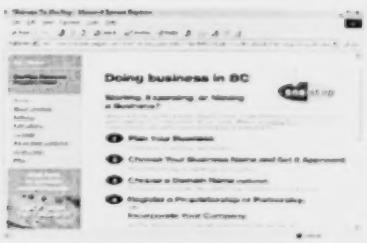
As e-service plans develop a process needed to shift strategic analysis outward in order to build an understanding of what is important to customers, how services integrate with customer processes and how the customer wants the service delivered.

The province has completed some of the fundamental foundation work that many jurisdictions are just beginning, and has already made significant contributions to the e-Government initiative.

Services for Business and Citizens







4.0 Corporate Direction for Supporting E-Government

The e-Government plan involves the development of a shared common agenda, including a shared set of priority services. The plan requires inter-agency coordination, the establishment of priority foundation and innovation projects as well as centrally led initiatives. The initial e-Government plan has reviewed and considered existing ministry plans for e-service delivery, timeframes and support levels.

The overall priority for the Office of the CIO is to focus on services that have the greatest return on investment and that meet targeted ministry initiatives. As part of the e-Government plan, the corporate office will continue to enforce common technology standards, processes and support models for sharing of information.

The Office of the CIO will work closely with ministries to understand their priorities and changing support needs. CIO led initiatives will be planned in accordance with ministry priorities. This will ensure the delivery of appropriate services and the support structures to meet common ministry service plans. Emphasis will be placed on formulating funding strategies with a clearu nderstanding of budgetary requirements and return on investment.

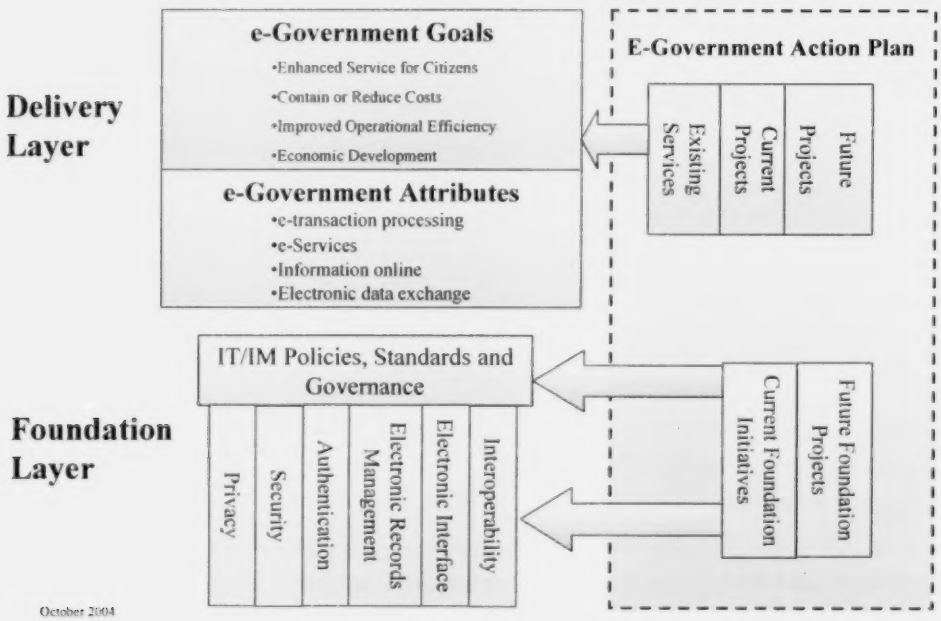
Ministries will continue to develop their own priority electronic service initiatives. Ministries will also be responsible for building knowledge about their customer priorities by reaching out and working with their target e-service customers. This will require an understanding of who wants the services, what services are important, how the services are delivered and where they should integrate with existing customer processes.

To assist these ministry efforts, the Office of the CIO has identified seven key central foundation functions or components that will support the e-Government plan. These key foundation components can be achieved through an approved and funded multi-year plan that is directly developed and facilitated through the Office of the CIO. The key foundation initiatives are:

- Privacy
- Authentication
- Electronic Records Management
- Security
- Common User Interface
- Interoperability Standards
- e-Government Management and Central Funding

E-Government Delivery Framework

The diagram depicts the various components of the e-government service delivery framework.



Information Privacy

The province has a well-developed legislative and policy framework to protect individual privacy. This framework will be strengthened by the legislative amendments passed in the fall, 2004, session. Additional legislative changes may be introduced in the Spring, 2005, session.

Enhanced Authentication Service

A common, centrally administered authentication service will support B.C.'s e-government initiatives and ensure a consistent seamless and cost-effective service for B.C. businesses and citizens transacting with the B.C. government. Development of a corporate authentication service has been approved and funded by government. Development of a registration and user support service, and the supporting policies and tools will take place over the next few months.

Electronic Records Management

Government requires a comprehensive information management infrastructure (standards, policies and integrated applications and services) that enables government electronic documents and information to be managed and preserved as complete, reliable and accessible records. A major component of this infrastructure - an Enterprise Document and Records Management System (EDRMS) - was established in 2003, when government selected the TRIM software package as the standard. TRIM implementation projects are underway in three ministries. The current funding model (ministry contributions) limits the ability of government to provide central administration and infrastructure support for ministry implementations and to achieve economies of scale. It is recommended that a central e-Government fund be used to enable a more corporate approach for TRIM implementation, including the bulk purchase of licenses to reduce both initial costs and ongoing maintenance fees.

Security Enhancements

The e-Government environment requires a strong security system in order to protect information and to ensure public trust. A major multi-year project to improve the province's information technology security has recently been funded by Treasury Board. This security upgrade will reduce the government's current vulnerability to service disruption, allow

greater network connectivity options and improve the public's trust in electronic transactions with the government.

Common User Interface – Portal

The Portal project continues to develop a corporate interface with citizens, businesses and provincial employees. It requires more ministries to convert their information exchange systems to the common application. It also requires a more stable funding source to ensure its future viability.

Interoperability Standards

Enterprise architecture infrastructure as well as standards need to be defined in order to support e-service access requirements. This is an area of future development in order to achieve the goal of enhanced service and access. There are a number of common applications in the design or development stage, however, promoting inter-ministry collaboration in a period of limited budgets presents a difficult challenge.

An inter-ministry committee with participation from early adopters of e-technology as well with private sector industry will be formed to identify the key areas where standards are required and to discuss ideas and solutions for provision of standards. Informally there has been some progress in identification of the various standards, but this needs to be formalized with action plans for providing solutions.

Improved Management and Central Funding

Improved management requires adoption of a longer-term e-Government plan with clear priorities and criteria for the promotion of e-Government initiatives. There is currently limited authority vested with the CIO to facilitate, guide and promote corporate initiatives. Ministries have expressed a strong desire for collaboration. The acceptance of this e-Government Plan will assist in developing a corporate blueprint for future development. The CIO must be provided with greater authority to facilitate greater cooperation. The proposed e-Government Fund will provide some financial incentives to more actively pursue the e-Government corporate objectives.

Formal structures and reporting mechanisms need to be put in place in order to oversee the e-government plan and report on central initiatives. In the past these roles have been fulfilled by existing management without any change to their other roles and responsibilities. This has resulted in a general lack of available time to manage the

initiatives, lack of coordination between activities, lack of timeliness of delivery and inability to appropriately plan and monitor the outcomes. The IRMP process will assist in establishing fiscal year priorities but this needs to be expanded so that there is continuous monitoring of progress and establishment of priorities. Central initiatives will require resources under the authority of the CIO, to work with each initiative's project manager and liaise with ministry initiatives to ensure that work and timeframes for delivery are coordinated.

Summary

Each ministry and agency of government has a prescribed role to fill. The individual ministries will continue to identify, fund, and implement e-services that will benefit their particular objectives and stakeholders. The Office of the CIO will identify and implement foundation e-service initiatives that all ministries and programs can access and use to provide a single point of e-service access for citizens and business.

Ministries and the Office of the CIO currently embrace a customer centric view towards e-service identification and prioritization. There must be a heightened degree of cooperation and collaboration between ministries and central agencies. Efforts must be made to ensure application interoperability, common look-and-feel and seamless data delivery.

The Office of the CIO will facilitate the development of foundation standards that support the electronic service agenda. The CIO will not dictate ministry e-service priorities, rather, he will work with ministries to develop foundation applications in time frames and with priorities that complement ministry plans.

5.0 Specific Priorities

This section of the plan outlines more specific e-Government priorities for the current and the next two fiscal years. The sections describe, under the foundation categories, current and recommended initiatives/projects, responsibility, and time frames and estimated costs.

Information Privacy

Current

Government has strengthened the legislative and policy framework governing personal information in response to concerns raised about the USA Patriot Act and the outsourcing of government services to ensure that the personal information of British Columbians continues to enjoy the highest protection of any personal information in Canada. B.C. is the first jurisdiction in Canada to address privacy issues arising out of the USA Patriot Act by legislative amendments and tough new privacy protection measures. These measures will support government's Alternative Service Delivery initiatives by ensuring strong protection for personal information that is handled by service providers and will position BC as a leader in this area.

The mandate of the Information Policy and Privacy Branch has recently been expanded and reorganized to recognize the increasing need for corporate policy support and coordination on all manner of information issues, including information technology, security management and enhancement, privacy impact assessments, management and use of electronic records, and the development of an identity management and authentication service.

Information Privacy (cont'd)

Priorities – 2004-2007

The Information Policy and Privacy Branch is a key component of the Strategic Planning and Policy group within the CIO's office. This Branch will continue to review and comment on all manner of government initiatives involving personal information (including outsource initiatives), and support and provide policy direction for the security enhancement initiative, the enhanced authentication service, and other e-government projects. The Branch will also continue to monitor and provide support for the legislation, and initiate consultations with stakeholders around the development of new information management legislation or regulations.

Corporate Authentication

Current

Following a comprehensive consultation process, corporate user authentication requirements and an administrative policy framework have been designed. This will provide a common identity management service. The Corporate Authentication Project will implement a cross-government solution and service for identity management, which includes identification, authentication and authorization for businesses, residents, BC Government employees and the broader public sector.

Priorities – 2004-2007

The corporate authentication system, approved by Treasury Board on October, 2004, will be implemented as an e-Government foundation initiative by the spring/summer of 2005. The central registration and administration service will be located within the Service Delivery Branch of the Ministry of Management Services. Once established the usage of this service will be measured and enhancements developed as required. The annual operating cost is estimated at $2.3 million.

Electronic Records Management

Current

The TRIM software product has been adopted in June 2003, as the government standard Enterprise Document and Records Management System. TRIM implementations are underway in the Ministry of Forests, Ministry of Transportation and Ministry of Management Services. Other ministries are developing business cases and undertaking implementation planning. However, the costs to ministries of implementation management and licences have proven a barrier to widespread implementation and to the goal of establishing a cross-government EDRMS infrastructure for e-government.

Priorities 2004-2007

The government supports ministry EDRMS implementations through use of a corporate e-Government fund to provide central administration services and to purchase the licenses required for a government-wide rollout. The cost for 20,000 licenses is $1.7 million (which would be amortized over 5 years), plus annual maintenance fees (20% of purchase cost). A small increment to the central support capability will also be required during the implementation period, until the user fee base is sufficient to fund the required infrastructure and services.

Security Enhancement Project

Current

The Office of the Chief Information officer had identified a need to significantly strengthen the government's IT security preparedness and response capabilities. A strong security framework is vital to protecting the government's information assets and to ensure the public's trust in electronic service and transactions. Additional funding of $3.0 million annually was approved by Treasury Board in October, 2004, to facilitate the enhancement project.

Security Enhancement Project

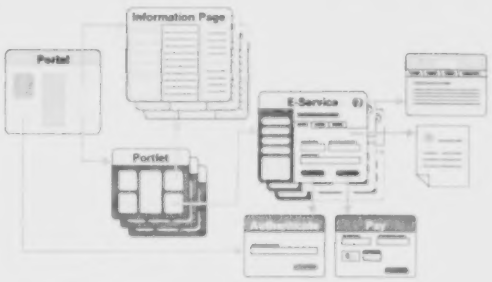
Priorities – 2004-2007

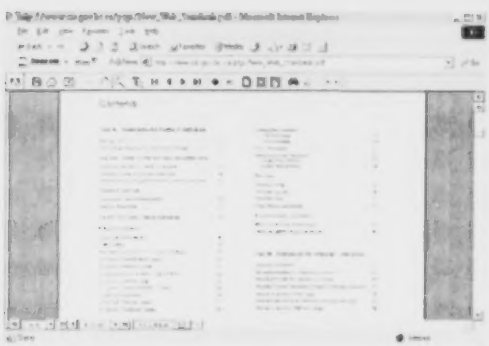
The Security Enhancement Project is multi-faceted and includes reviewing and improving policy and procedures, improving protection capabilities, segmenting the provincial network and enhancing monitoring and awareness. Regular reports on the progress of the enhancement project will be published.

Common User Interface

Current

The government is committed to a corporate information access portal, which will provide significant benefits to users who wish to access government information and services. The Portal Project has encountered implementation problems, but now appears to be stable and positioned to fulfill the original expectations.





Priorities – 2004-2007

The Portal will significantly increase the capability of delivering a common user interface and reducing the number of separate ministry/program websites developed across government. The government will continue to add content and functionality to the Portal.

Improved Operability and Data Sharing

Current

Improved system interoperability and data sharing is a fundamental benefit to a corporate approach to e-Government. There are currently a number of applications in service or under development that have the capability to be expanded or modified to meet other program objectives. However, privacy issues needed to be considered and protected for such an initiative to be successful.

Common data systems are under development in a number of sectors, including health records, student records and information and criminal and civil case records.

Priorities 2004-2007

During this period the Office of the Chief Information Officer will improve policies and standards to promote data sharing and system interoperability. It will provide mechanisms for sharing cross-government application development and common application components. The office will, in conjunction with Common IT Services (CITS) and the ministries, analyze and test new integration software (such as Web Methods) to ensure that government standards remain current with Industry practice.

Improve e-Government Management, Policies and Standards

Current

The government has many of the components currently in place to move forward on its e-Government agenda. The e-BC Strategy provides a useful reference point, as does the current structure of the Office of the Chief Information Officer. The IT annual planning across government (through the Information Resource Management Plan process) is becoming more mature and focused on corporate issues. However, greater clarity and focus can be achieved through a number of improvements in authority, coordination and strategic funding.

Priorities 2003-2007 (cont'd)

The authority of the Chief Information Officer is still vague with respect to the direction and priorities for information technology and information management to transform the delivery of government services. Ministries have expressed a desire for a clearer government plan for IT and electronic service delivery.

Priorities 2003-2007 (cont'd)

The adoption of a corporate e-Government Fund to support foundation applications and projects will assist in the alignment of ministry plans to the broader objective, and advance the time frame for achievement of electronic service delivery.

A central governance structure needs to be implemented which will have terms of reference which include:

- *Maintaining the e-government plan;*
- *Review of annual ministry plans as they pertain to electronic service delivery;*
- *Project management, coordination and planning of central initiatives;*
- *Outcome monitoring of the e-Government plan and specific identified e-Government initiatives;*
- *Publishing of e-Government standards and enterprise architectures; and*
- *Publishing of research and links to knowledge repositories.*

The Office of the CIO will continue to develop *policies and standards that support e-Government initiatives*. The CIO will continue to improve cross-government information sharing and cooperation respecting IM/IT projects, and develop performance measures to strengthen the business cases for e-Government related initiatives.

6.0 Summary

Technology is a major part of the government's change agenda. The first Internet "wave" has passed and average British Columbians are discovering what an indispensable tool the Internet can be. The e-Government initiative capitalizes on all that we have learned with respect to Internet strengths and strives to mitigate what we know about its weaknesses.

The e-Government initiative is a significant undertaking. It will require considerable commitment, funding and resources from both government and external stakeholders.

For e-Government to be successful, a high level of collaboration, communication and cooperation must occur. The fundamental building blocks are in place but much still needs to be done. Many individual e-services have been implemented and more are yet to come. Security, efficiency, accuracy and ease of use will be the foundation watchwords of e-Government.

The Office of the CIO will coordinate, standardize, and help prioritize ministry e-service initiatives. It will share best practices, act as a progress enabler and will ensure that stakeholders perceive value in each e-project that is implemented. Return on investment will guide the office of the CIO when determining project funding and priorities.

The goal of government economic development and growth is fundamental as governments strive to enhance the well being of its citizens. Information technology holds the promise of a better education, skilled and informed citizenry, as well as redirecting the time and cost of citizens and businesses who require access to government services and programs.

The Province of British Columbia is well positioned to be a national leader with regards to the e-Government initiative and British Columbians can be justifiably proud of its success to date, and in the future. There is much yet to be done and many challenges and opportunities must be met and exploited to ensure that the full potential of e-Government is available to the citizens of British Columbia.

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Appendix i

The following provides a summary of the e-service applications by type:

Total Services in e-government services	556
External Services	
Citizen Services (88)	
Informational	32*
Interactive	31
Transactional	25
Business, other ministries and other governments (193)	
Informational	36
Interactive	89
Transactional	68
Applications that are shared by business, government and citizens	21**
Total External	302
Applications used internally by ministries	277***

Transaction Type Definitions:

Informational: information about the program/service is provided via one or all service channels.

Interactive: the application interacts with the user. The user may provide information, download forms, enter a postal code or submit information. A service is NOT completely fulfilled via the online channel.

Transactional: users can complete entire transactions online, including payment for service if applicable.

Notes:
Information is based on the initial e-service inventories supplied by ministries, statistics are approximate because some data had to be interpreted.
*These informational services are services generated by e-government applications and do not include all the informational websites in the BC Government estimated to be over 300.

**These 21 services are double counted in the numbers above.

***Approximately 20 applications are used both internally and externally.

Appendix ii

Transactional applications that support e-Government sorted by Ministry

Ministry of Agriculture, Food and Fisheries

E-Government Application Name	Application Description
Crop Insurance Risk Reporting and Administration System (CIRRAS)	A Crop Insurance Risk application that generates insurance policies, prepares contracts and tracts claims by individual crops.
Ministry of Agriculture Licencing System (MALS)	Consolidated, licensing, permitting and inspection monitoring system for agrifood producers and processors
VetLab	Tracks animal specimens through scientific pathology tests performed at the Abbotsford animal health center and bills the appropriate agencies

Ministry of Attorney General and Minister responsible for Treaty Negotiations

Lockup Management System (LMS)	Processes information documents from police (received electronically) and to assist Crown Prosecutors during case preparation.
Lobbyist Registry System	A web-based system to enable registration of government lobbyists.
Justice Information System (JUSTIN)	A Criminal Case Tracking system that captures all pertinent case information including; police submission of the Report to Crown Counsel, Crown Charge Approval, Court swearing of information, trial scheduling, recording results, and producing documents.

Ministry of Community, Aboriginal and Women's Services

Child Care Web Application (CCWA)	Allows childcare providers to enter data on enrolment information, querying on payment questions, and profile on provider.
Investor Services System (ISS)	The Investor Services System is used to track and evaluate applications and proposals from foreign investors who are seeking to immigrate to Canada Has a Web component that permits online seminar registration.
Fire Incident Reporting System (Fires)	Office of Fire Commissioner Fire Incident Reporting System,
Emergeo	Office of Fire Commissioner Emergeo mapping system used to display evacuation alternatives.

Ministry of Advanced Education

E-Government Application Name	Application Description
Employers' Advisors Service (EASR)	EASR is an e-service interface to the Training & Seminar application database.
Youth Opportunities Information System (YOI)	Management of the Youth Community Action Program.
BC Student Assistance Program BCSAP On-line (BOL)	Provides a web-based means of submitting a BCSAP application to the Student Services Branch.
Student Financial Aid System (SFAS)	Calculates and disburses awards and grants to students.

Ministry of Education

Financial Reporting Electronic Delivery System (FREDS)	Enables the Funding Department and the Ministry to comply with Government Approved Accounting Principals requirements for the school district financial data collections
Transcripts and Examinations (TRAX)	The purpose of the Transcripts and Examinations system (TRAX) is to help manage the provincial examination and transcript process for grade 11 and 12 students.
Independent Schools Information System (ISIS)	ISIS provides the functions to administer funding, manage payments, and assist the planning and evaluation of these schools.
General Education Development (GED)	The GED (General Educational Development) is primarily a reading test that is designed to measure the skills that examinees would have normally gained through twelve years of formal education.
Teacher Assessment, Salary & Qualifications (TASQ)	TASQ provides the functions to collect and report on teacher assignments, salaries, and qualifications in the BC Education System. This includes both public and independent schools
Foundation Skills Assessment (FSA)	The Province and Districts use the FSA results to report on the results of student learning in selected areas of the curriculum; assist in policy, program, and curriculum development; facilitate public and professional discussions on student learning; and analyze results of particular populations of students.
Examination and Assessment Contracts System (ECAS)	ECAS provides the functionality for managing marker credentials, marking schedules, contracts, and producing contract payments

Ministry of Education continued

E-Government Application Name	Application Description
Student Level Data (SLD)	Student Level Data - Collects data on individual students to allow the Ministry to eliminate problems associated with duplicate enrolment and the subsequent double funding of students.
Personal Education Number (PEN)	The Personal Education Number (PEN) is a nine-digit number assigned to each student as they enter the British Columbia education system.
Student Tracking & Reporting System (StaRS)	Application to enable English Second Language (ESL) agencies to report student progress through curriculum
Common Student Information System (BCeSIS)	The purpose of the common system is to improve the capacity of the school system to monitor, measure, and report on student performance while reducing costs to individual school boards.

Ministry of Skills Development and Labour

Employment Standards Complaint (ESC)	This e-service allows citizens to initiate a complaint allegation regarding the Employment Standards Act.

Ministry of Forests

Forest Tenure Administration	Enables forest companies to create and submit tenure data, including spatial data to the Ministry of Forests Forest Tenure Administration application.
Seed Planning and Registry System (SPAR)	SPAR is a web-based information management system that provides clients with direct on-line access to a provincial registry of forest tree seed and a comprehensive seedling ordering system for meeting annual reforestation needs.
Harvest Billing System (HBS)	HBS is an internet-based solution to collect daily scale data electronically from the scale site, process samples, invoice piece scale and weight returns and provide audit, reconciliation and a variety of reporting capabilities for use by the ministry, industry and public
E-Commerce Appraisal Application (E-CAS)	E-CAS is an electronic commerce application between Forest Licensees and Ministry of Forests for gathering appraisal data.
Protection systems	Various Protection Fire management, mapping and monitoring systems

Ministry of Children and Family Development

E-Government Application Name	Application Description
Integrated Case Management (ICM)	Pilot project to demonstrate and evaluate the effectiveness of a web-based tool in support of the practice of ICM in 3 pilot locations. The pilot provides clinicians with secure access to a collaborative tool for case conferencing and to record plans for care
Community Exchange (pilot)	Community Exchange Secure Email (pilot) - This network (Community Exchange) will link all the sector partners, facilitate the provisions of open and accountable client services and is a strategic investment in community capacity and resilience building.

Ministry of Finance

Publish and Subscribe (SUBS)	Web-based notification subscription service for Core Policy Manual updates
One Stop Business Registration System (One Stop)	Companies can register their business with multiple federal, provincial and municipal government agencies
One Stop Business Address Change	Company can change their address with one entry and automatically notify participating federal, provincial, and municipal agencies
Corporate Client Letters (CLW)	Send letters to clients when we are unable to file their documents
Corporate Online (COLIN)	Web-based self-service application to register the incorporation, maintenance, and dissolution of companies doing business or active in BC
Company Branch System (COBRS)	Filing of corporate documents; includes electronic name reservation request. Used for societies, cooperatives, and partnerships.
Personal Property Registry (PPR)	Notice filing system which registers all of the encumbrances (e.g. mortgages, liens, and dentures) created against personal property in BC
Manufactured Home Registry (MHR)	Application to register ownership details and location information for manufactured homes in BC

Ministry of Health Services

E-Government Application Name	Application Description
Ambulance Billing Information System (ABIS)	System used to support ambulance billing to clients. Generates bills for users of the Ambulance Service
Call Manager	Call Manager is call logging software used by nurses and licensed from Healthwise. It is a tracking system that stores information about a call centre's activities.
Continuing Care Information Management system (CCIMS)	Application providing information on continuing care, used by Health Authorities to track Home and Community Care services; also used as payment system
Claims - DATA ENTRY and DATA SUPERVISOR	Allows medical claims submitted on cards to be processed and paid by MSP
TELEPLAN/PC	The Medical Services Plan Teleplan System electronically transmits claims and payments from health practioners.. Allows medical claims submitted electronically to be processed and paid by MSP.
HARP (Health Authority Reporting Program)	HARP that provides the Health Authorities with the ability to electronically submit their financial and statistical data to the Ministry.
Health Capital Assessment and Planning System)(HCAPS)	A health facility central repository for inventory, assessment and capital project request submissions for the Province relating to all healthcare facilities owned by Health Authorities or which receive funding from a Health Authority
HealthnetBC MSP direct	MSP Direct is a secure online Web service that allows Group Plan Administrators of the Medical Services Plan of BC to make adjustments to their members' accounts instantaneously. Authorized users are able to add and remove employees and their dependents from MSP group accounts, retrieve and update addresses of employees, confirm the Personal Health Number of an employee or dependent, and update or correct personal demographic information
HNClient	Provides authentication and encryption services
HNFILE/HNFTP	HNWeb is part of the HealthNet Infrastructure, a Web "front door" to a number of applications and services used within the Ministries of Health and external stakeholders

Ministry of Health Services continued

E-Government Application Name	Application Description
Hospital Out of Province Claims (HOOPC)	The Hospital Out-of-Province Claims system (HOOPC) is a web-based application that provides British Columbia hospitals with a secure method of submitting out-of-province (OOP) claims directly to the Ministry of Health.
Out-of-Province Claims System (OOPS)	Covers both Resident claims and non-Resident claims for Inpatient and Out-Patient.
PharmaNet Applications	Realtime adjudication of prescription claims, realtime drug-to-drug interaction checking and flagging, patient drug profile information, Special Authority information, and more.
Provider Registry	An online shared registry of health service providers. Provider Registry is an application which stores provider data supplied by data Sources such as the College of Physicians and Surgeons of BC, the College of Pharmacists and the Registered Nurses Association of BC.
Public WaitList (SWL)	Provides the Public a view of Waitlists by Procedure and Surgeon at various hospitals throughout BC.
TOAST (The Oracle Account Servicing Tool)	Used by Ministry of Health Services Help desk for resetting passwords.
Vital Stats online	The British Columbia Vital Statistics Agency provides clients with the opportunity to order their vital event record (birth/ marriage/ death certificate, photocopy or genealogical certificate) using their VISA/ MasterCard/ American Express credit card.

Ministry of Human Resources

Management Information System (MIS)	Tightly Integrated mainframe application made up of several smaller applications to manage HR clients.

Ministry of Transportation

E-Government Application Name	Application Description
Registration, Identification, Selection and Performance Evaluation (RISP)	The Registration, Identification, Selection and Performance Evaluation (RISP) application collects information and, through an adjudicated qualification process, facilitates rotational selection of qualified consulting engineers for selected ministry engineering projects. Allows self-registration by engineering consultants and provides a selection algorithm for Ministry project managers.
Hired Equipment Tracking System (HETS)	The Hired Equipment Tracking System (HETS) supports the Ministry's Hired Equipment Program and is used to manage and track the hiring details of owner/operators and their equipment used in "day labour" situations. Allows self-registration by equipment owner/operators and provides a selection algorithm for Ministry staff.

Ministry of Provincial Revenue

Mineral Tax Report Filing System (MTRFS)	This system provides an electronic format for the Mineral Tax Return (25 pages long) that feeds directly into the MinTax
Electronic Data Interchange Mailbox (EDI)	EDI is used to receive monthly Social Services Tax returns and payments from large individual corporations and medium/small businesses
Tax Administration and Compliance System (TACS)	The TACS application allows multiple tax types, each governed by its own unique set of business rules, to be configured within a single integrated application. TACS is structured to allow all tax types implemented within the system to share a set of functional managers while still accommodating their unique data and functionality requirements.
Property Transfer Tax System (PTT)	The system holds data from all property transfer tax returns for a period of at least 18 months from the transfer date. Additional data is imported from the Land Title and BC Assessment systems and some data is exported to BC Assessment
Royalty Management System (RMS)	The Royalty Management system is used for administering the collection and verification of oil and gas royalties and freehold production taxes.

Ministry of Management Services

E-Government Application Name	Application Description
BCBid	Allows public sector organizations to post opportunities for procurement on the Internet, and to manage the procurement process including receiving on-line bids directly from suppliers. Allows suppliers to search, view and electronically bid on opportunities
Corporate Records Mgmt System	Manages individual customer records through their life cycle from creation to disposition.
Corporate Request Tracking System	Permits ministries to track requests for information received under the FOIPP Act.
Correspondence Tracking System	An application for correspondence tracking and management within an organization. CTS facilitates logging the correspondence, generating referrals and tracking the progress of responses.
Integration Broker Service (WebMethods)	Enables secure, reliable, information exchange between entities and applications.
Enterprise Portal Web Site	The governments single window access to services, information and applications.
BC Online	Offers easy access to a wide range of British Columbia Government Registry information.
Multiple Address Change (https://www.addresschange.gov.bc.ca/)	Provides Internet access for BC residents to submit change of address to Ministry of Health (Medical Services Plan), Insurance Corporation of British Columbia (driver's licenses) and Elections BC (voter registration).
Waste Busters	Allows the public to identify government waste and make suggestions to improve process.

Public Service Agency

HRCharter Organization Charting	Using data from PeopleSoft position management for viewing and printing of organization charts
CHIPS	Corporate Human Resources Information & Payroll system
Employee Portal	Single window access for government employees to a variety of services.

Ministry of Public Safety and Solicitor General

E-Government Application Name	Application Description
Responsible Gambling Info System (REGIS)	Web based system that will accept Problem Gambling counsellor submissions over the internet.
Bingo Licensing System (Class B)	Administration of Gaming Class B Licenses to allow organizations to conduct Bingo, Raffle, or Wheel of Fortune events.
Law Enforcement / JUSTIN interface (PRIME)	To provide an electronic interface between the PrimeBC (Police) system and the JUSTIN database.

Ministry of Sustainable Resource Management

ATLAS	Application to construct and deliver scanned images to TANTALIS and TANTALIS-X)
Automated Land Title Office System (ALTO)	ALTO is a computer system with an integrated image subsystem, which automates the process of land title registration in British Columbia.
Rare and Endangered Elements Data System	Database repository which provides Data Entry, Data Retrieval and Browsing functions to Business area
RECCAP	Online application to enable District staff to enter, edit and update spatial and attribute data for Recreation Resources Inventories
Data Registry	Environment, Land and Parks Data Registry
Describing the Ecosystems in the Field (Venus)	VENUS is used to capture and validate field data (site, soil, veg., wildlife, etc.). The application is used by SRM, WLAP, and MoF.
Digital Image Management	A complete data management and distribution environment for provincial base imagery, which includes air photos, stereo models, orthophotos, orthomosaics, and rasterized base maps.
EnerGIS	Registry of Petroleum and Natural Gas tenure, Geothermal tenure, and soon to include Coal Bed Methane tenure. Contains official locations of Oil and Gas Wells (OGC).
RIS Recreation Resource inventories	PC application to provide data entry for all Recreation Resource inventories and datasets
RUS	PC application to calculate estimates of public use at forest recreation campground

Ministry of Sustainable Resource Management Continued

E-Government Application Name	Application Description
TANTALIS	A system which records all spatial and attribute information regarding survey and Land Act dispositions. Tantalis is the key system used by BC Assets and Land Corporation and .he Oil & Gas Commission to record disposition of Crown lands.
TANTALIS GATOR	Tantalis GATOR (Extranet) is the web-based viewer, which provides crown land information to external government & private sector users.
FRBC Fish Project Status Query	A query tool for summarizing the status of all the FRBC funded fish inventory projects in the region and for linking the user directly to any available digital data.
HRIA	A system for the recording, maintenance and dissemination of archaeological and other types of heritage information.
LANDDATA BC	Online ordering of maps and air photos.
LTB Point of Sale System	PC based, customized POS application (DOS-based) to record transactions received at the LTO front counter. (mission critical).
Water Quality Data Management System	Reports water quality and quantity measures from various variables and hydrometric data (discharge and flow), and data collection platform data. Now stores both manual and automated groundwater level data.
Corporate Records Management System	A cross gov. application for records management. It will be replaced by TRIM the new government standard

Ministry of Water, Land and Air Protection

E-Government Application Name	Application Description
Park Use Permit System	Reserve a camping location online
Conservation Officer On-line Reporting System	Conservation Officer On-line reporting system that keeps tracks of people that commit offences.
Protected Area Registry (PAR)	On-line application to capture BC Parks individual protected area information (size, class etc.)
Habitat File (H-File)	Searchable database for Habitat referrals, assigns ORCS number and unique ID for filing original documents
Environmental Referral System	Referral tracking system
Environmental Monitoring System	Data repository that records results of physical/chemical and biological monitoring analysis. The Electronic Laboratory Requisition System a component of EMS: generates lab requisitions.
Floodplain Decision Registers	Maintained in each region, is a floodplain mapping web site with images of floodplains.
WELL	WELL records location and lithology of water wells.